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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,265	03/24/2004	Ulf Lanz	2003P03035US	8329
7590 01/08/2008				
Brinks Hofer Gilson & Lione				
P.O. Box 10395				
Chicago, IL 60610				
		EXAMINER		
		BEISNER, WILLIAM H		
		ART UNIT		
		PAPER NUMBER		
		1797		
		MAIL DATE		
		DELIVERY MODE		
		01/08/2008		
		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/810,265

Applicant(s)

LANZ, ULF

Examiner

William H. Beisner

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 6-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 11-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/24/04.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of the species of Figure 2, claims 1-5 and 11-15, in the reply filed on 10/17/2007 is acknowledged. The traversal is on the ground(s) that all of the claims read on the species of Figure 1 and claims 1-5 are generic. This is not found persuasive because Figure 1 and Claims 1-5 and 11-15 both require that the mixing device is communicated with both of the cooling or heating conduits while Figure 2 requires that the mixing device is communicated with only one of the two conduits. It is not seen how claims 1-5 and 11-15 can read on the species of Figure 1 when the claim requires that the mixing device is communicated with both of the conduits.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 6-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 10/17/2007.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

4. The information disclosure statement filed 3/24/2004 has been considered and made of record.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4 and 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Zurek et al.(US 5,576,218).

With respect to claims 1 and 11, the reference of Zurek discloses a PCR apparatus (See Figure 4) that includes a specimen chamber (10); a heating conduit (14, 18, 86); a cooling conduit (82); a pumping device (12,80) for pumping gaseous or liquid medium through the heating and cooling conduits; a heating device (16) disposed separately from the cooling conduit; and a mixing device (70) and/or valve (38) which communicates with the heating conduit and cooling conduit such that the ratio between the volume of the medium flowing per unit time through the heating conduit and a volume of the medium flowing per unit of time through the cooling conduit to the specimen chamber is adjustable by the mixing device. Note the heating conduit and cooling conduit communicate with the specimen chamber through conduit (44).

With respect to claims 2 and 12, the device is capable of being used with ambient air.

With respect to claims 3 and 13, the cooling conduit (82) is opened such that ambient air can flow in.

With respect to claims 4 and 14, the device includes a temperature sensor (11).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zurek et al.(US 5,576,218) in view of Kasahara et al. (US 6,633,785).

The reference of Zurek et al. has been discussed above.

While the reference discloses the use of a temperature sensor, the reference is silent with respect to an infrared sensor as is required of claims 5 and 15.

The reference of Kasahara et al. discloses that it is well known in the PCR device art to monitor the temperature within a reaction vessel using an infrared sensor (19).

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ an infrared sensor in the device of the primary reference for the known and predictable result of providing an alternative means recognized in the art to achieve the same result.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The reference of Kiel et al. is cited as prior art which pertains to a temperature control system which includes mixed streams of air.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Beisner whose telephone number is 571-272-1269. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:15am to 3:45pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys J. Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/William H. Beisner/
Primary Examiner
Art Unit 1797

WHB